

# Work Order ID 68256

Monday, April 11, 2011 10:32:12 AM



Page 1

Item ID:	D3183-045	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Bearing Assembly					
Start Date:	4/11/2011	Start Qty:	20.00			
Required Date:	4/14/2011	Req'd Qty:	20.00			
Reference:						

Approvals:	Process Plan:		Date:	4-10-11	Tooling:		Date:		Run	Start	
	QC:		Date:		SPC (Y/N):		Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D3183	Rev C1								

100		0.00							
	Hardinge CNC LATHE SMALL					20			
Hardinge	Memo	0.00							
Hardinge CNC Lathe Small	Turn D3183-9 Cap as per Folio FA388 Deburr								

11/4/26

110	QC2- Inspect parts off machine FAI/FAIB	0.00							
						20			
QC	Memo	0.00							
Quality Control									

11/4/26

120	QC8- Inspect parts - second check	0.00							
						20			
QC	Memo	0.00							
Quality Control									

11-4-26

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 68256**

Monday, April 11, 2011 10:32:12 AM

Page 2

Item ID: D3183-045

Accept

Setup Start

Revision ID:

Stop

Item Name: Bearing Assembly

Start Date: 4/11/2011 Start Qty: 20.00

Required Date: 4/14/2011 Req'd Qty: 20.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130



Small Fab

Small Fab

0.00

Memo

0.00

Press D3183-5 Bearing into D3183-9 Cap as per Dwg D3183.

*JS* 4/05/09 (20)

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

*8/11/09*

*count*  
(20)

150



Packaging

Packaging

Identify as per dwg & Stock Location: *236*

0.00

Memo

0.00

*11/5/9* (20)

W/O:		WORK ORDER CHANGES						
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**NOTE:** Date & initial all entries

**Work Order ID 68256**

Monday, April 11, 2011 10:32:12 AM



Page 3

Item ID: D3183-045

Accept



Setup Start



Revision ID:

Stop



Item Name: Bearing Assembly

Start Date: 4/11/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 4/14/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

WLC05.00

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**NOTE:** Date & initial all entries

# Picklist Print

Monday, April 11, 2011 10:32:18 AM

Page 1

Work Order ID: 68256

Parent Item: D3183-045

Parent Item Name: Bearing Assembly



Start Date: 4/11/2011

Required Date: 4/14/2011

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP A 04.02.18 New issue KJ/DS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3183-5  Bearing		Manufactured	No			110	Each	23.0000	1	20			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST236				23					
				67529				23					
MDELNR1.000  Delrin Round Bar 1"		Purchased	No			130	f	4.7680	0.0333	0.701053			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MAT055				4.768					
				116266				4.768					

*Handwritten notes:*  
 4/11/09  
 B68933 (182)  
 2  
 1/4/26  
 8 ft  
~~116266~~

W/O:		WORK ORDER CHANGES						
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**NOTE:** Date & initial all entries





W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

**NOTE:** Date & initial all entries

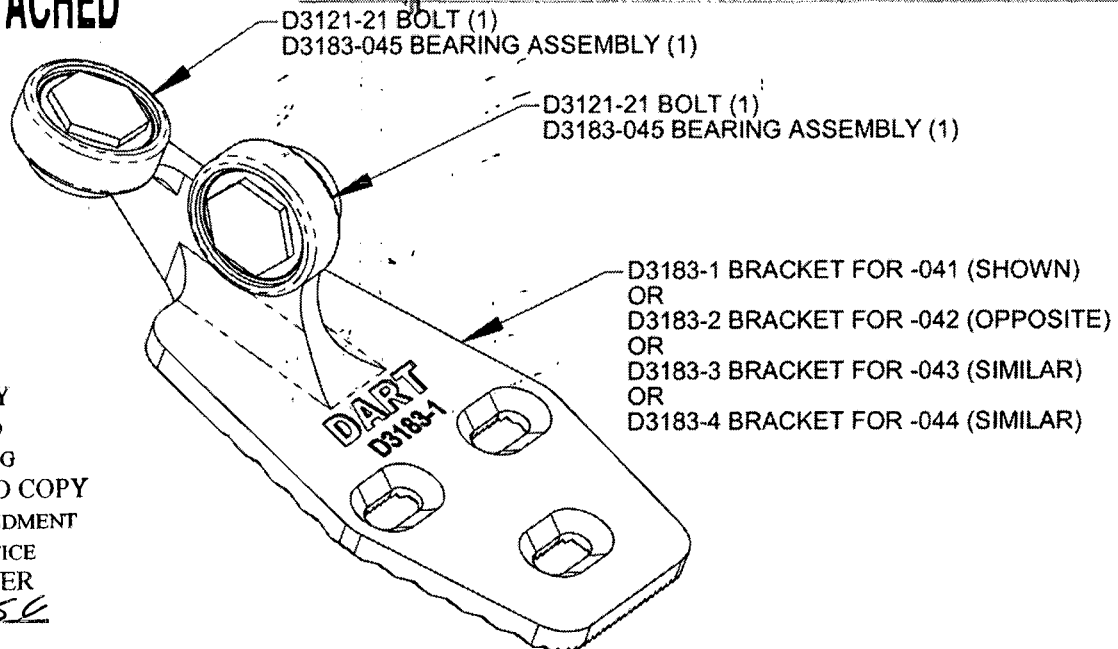


DESIGN #	DRAWN BY CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. <b>D3183</b>	REV. C SHEET 1 OF 4
DATE <b>04.02.17</b>		TITLE <b>BRACKET ASSEMBLY</b>	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	# 04.11.09	0.830 WAS 0.850	

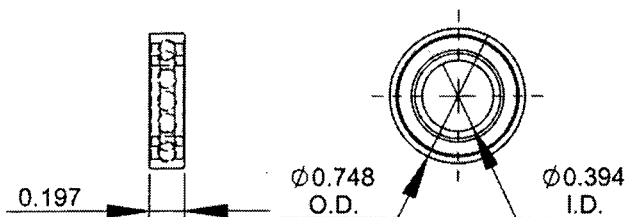
**RELEASED**  
04.03.01  
**DEO ATTACHED**

SHOP COPY  
RETURN TO  
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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 68256

*pl 11-04-11*

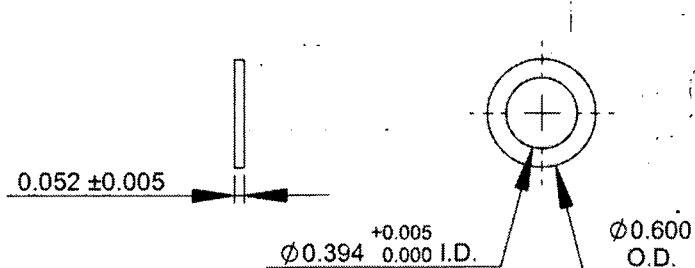


**D3183-041 BRACKET ASSEMBLY (SHOWN)**  
**D3183-042 BRACKET ASSEMBLY (OPPOSITE)**  
**D3183-043 BRACKET ASSEMBLY (SIMILAR)**  
**D3183-044 BRACKET ASSEMBLY (SIMILAR)**



**D3183-5 BEARING:**  
**SPECIFICATION CONTROL DRAWING**

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



**D3183-7 WASHER**

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

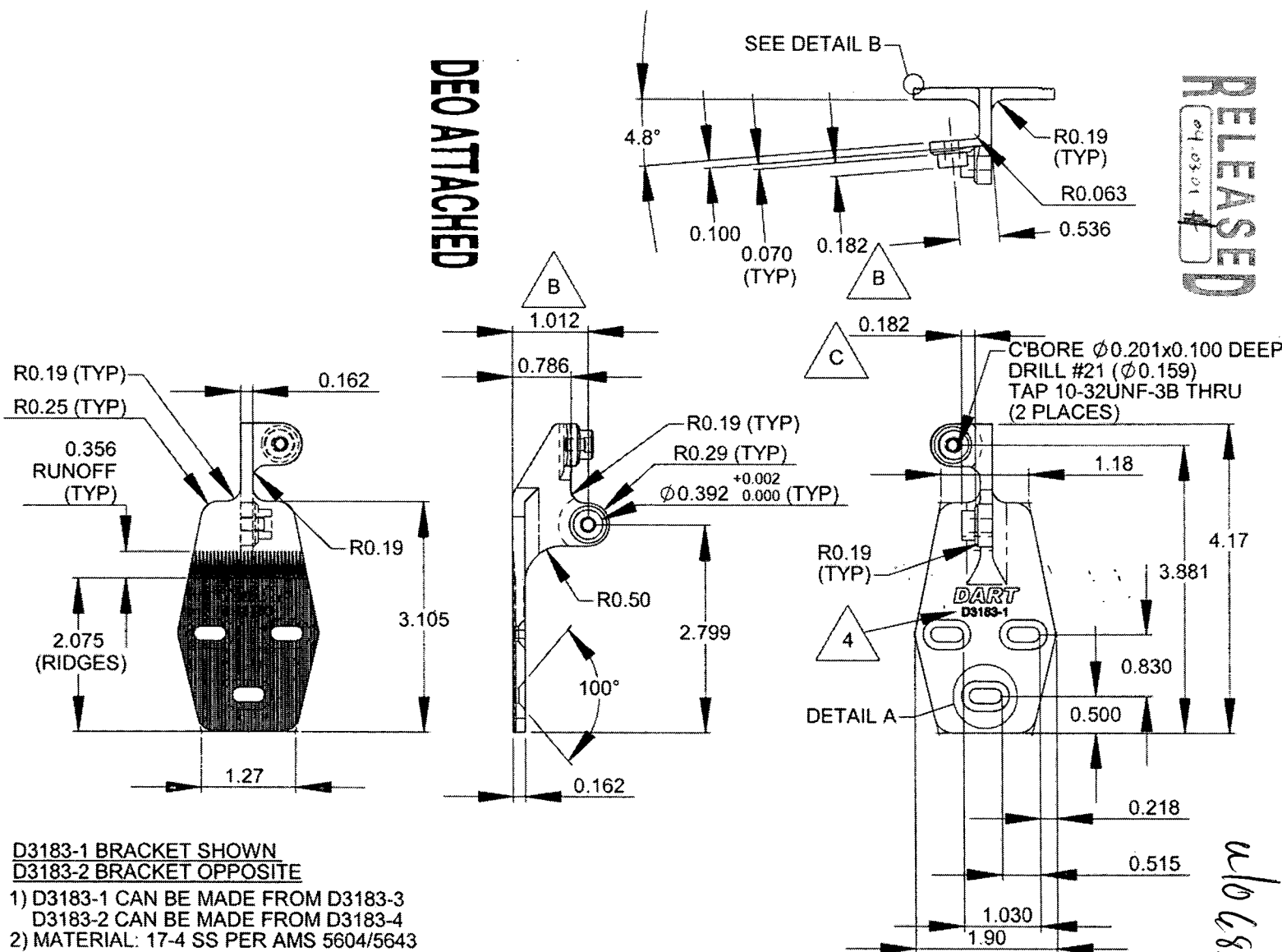
**DART**

QA COPY ISSUED

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DATE 04.02.17	TITLE	REV. C
	D3183	SHEET 2 OF 4
	BRACKET ASSEMBLY	SCALE 1:2

RELEASED  
04-03-01

DEO ATTACHED



D3183-1 BRACKET SHOWN  
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3  
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

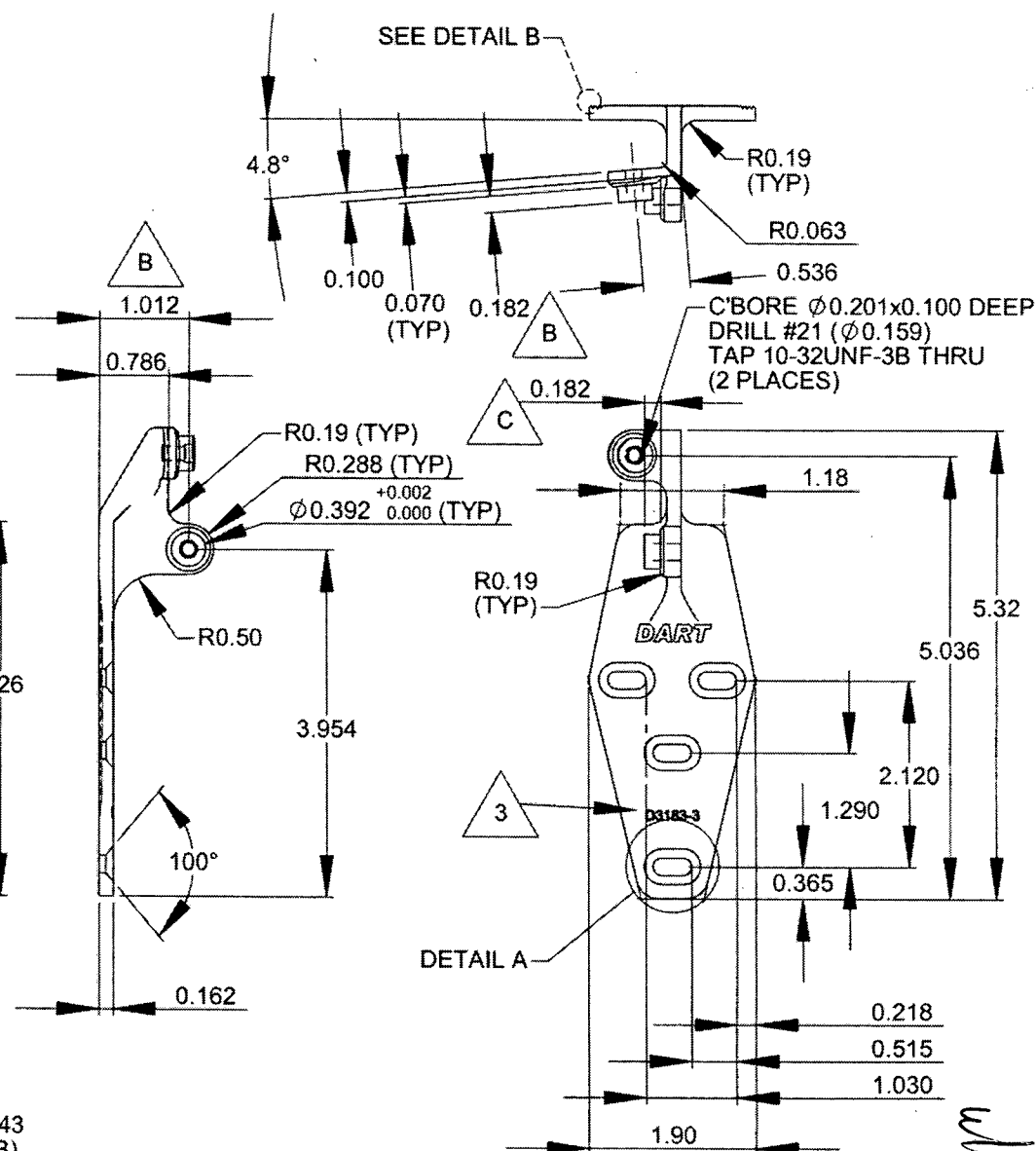
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

**NOTE:** Date & initial all entries

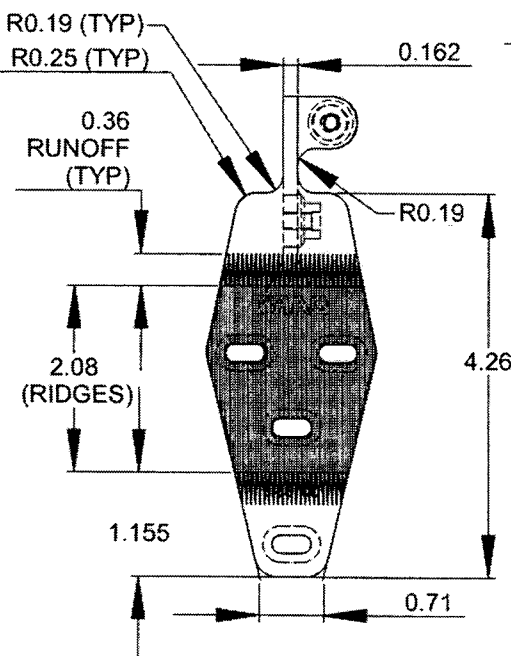


DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
DATE 04.02.17	DRAWING NO. D3183	REV. C
	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



*WLB 68256*

DEO ATTACHED  
RELEASED  
24.02.01



D3183-3 BRACKET SHOWN  
(REPLACES BELL P/N 412-030-304-105)  
D3183-4 BRACKET OPPOSITE  
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

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DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

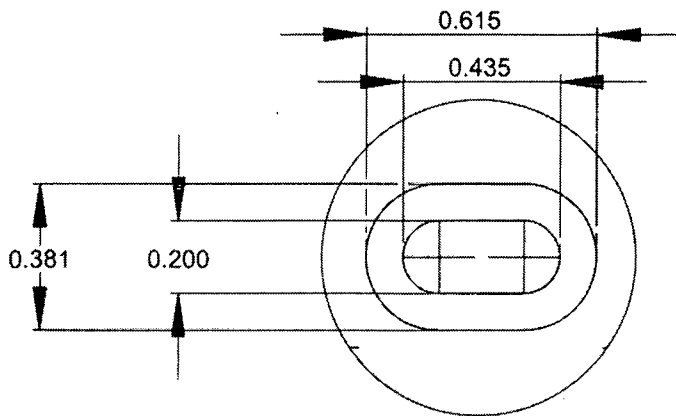
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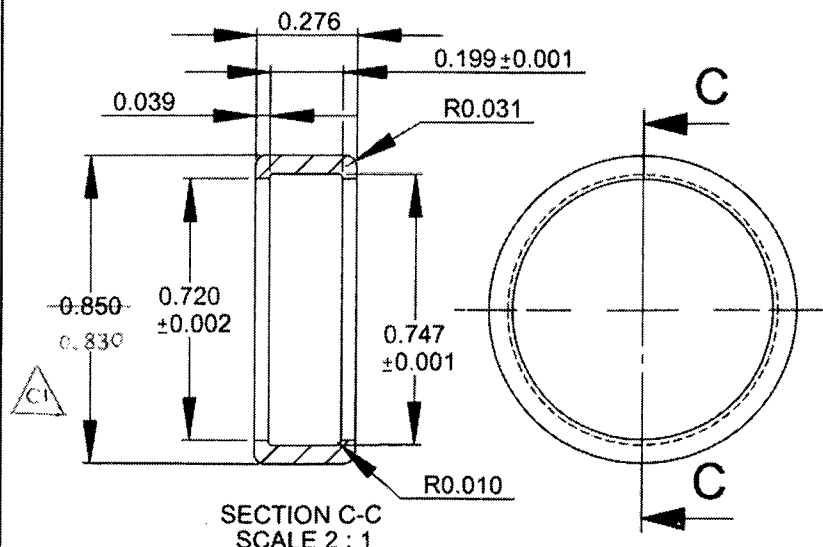
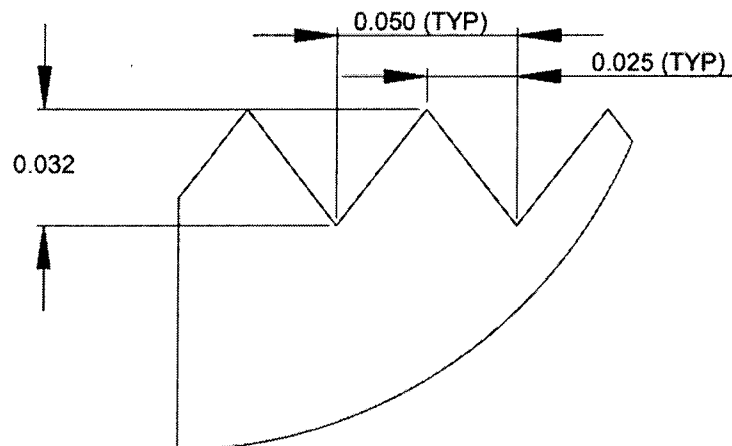
DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3183</b>	REV. C SHEET 4 OF 4
DATE <b>04.02.17</b>		TITLE <b>BRACKET ASSEMBLY</b>	SCALE 1:1



DETAIL A (2 : 1)

RELEASED  
04.03.01

DEO ATTACHED



**D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00  
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

**D3183-045 BEARING ASSEMBLY**

- 1) ASSEMBLE D3183-5 BEARING AND  
D3183-9 CAP

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DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV.C1	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>J</i>	MFG. APPR. <i>AA</i>	APPROVED <i>MP</i>		DE APPR. <i>MP</i>		
DATE 10.05.14	DATE 10.06.30	DATE 10.06.30	DATE 10/06/30		DATE 10/06/30		

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]  
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

*w/o 68256*

**RELEASED**  
2010-07-22  
*MP*

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